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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/060,472	04/15/98	NATSUSHIMA	030063

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EXAMINER	
NGUYEN, T	
ART UNIT	PAPER NUMBER
2634	

DATE MAILED: 04/07/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/060,472

Applicant(s)
Matsushima

Examiner
Nguyen, Tran

Group Art Unit
2834



☒ Responsive to communication(s) filed on Feb 18, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-10 is/are pending in the application.

Of the above, claim(s) 1-5 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 6-10 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2834

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Election/Restriction

2. Applicant's election of claims 6-10 in Paper No. 7, filed on 2/18/99 is acknowledged. Since Applicant did not provide any traversal arguments to the restriction requirement, the response is considered as election without traverse; therefore, the election/restriction is made FINAL.

Drawings

3. The record of the instant application encloses a Submission of Formal Drawings of five (5) sheets of formal drawings. However, there are no formal drawings enclosed in the application's file wrapper. The Applicant is advised to resubmit the formal drawings for this instant application.

Specification

4. The Specification is objected to because of the following:

On page 15, lines 8-9, and on page 16, lines 15-20, the pictorial reference number (15) refers to the ball, as shown in figs. 7-8 and 9(b) of the drawings. However, the assigned number (15) also refers to the so-called "latter". It is unclear that the term "latter" is another name for the ball, if that is the case, the Specification should be consistent; therefore, the term "latter" should

Art Unit: 2834

be changed to "ball". If the term "latter" refers to another subject matter different from the ball, then a different pictorial reference number should be used and shown in the drawings as well.

Correction is required.

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

6. The following title is suggested: Spindle Motor and Turn Table assembly having structure for canceling unbalanced centrifugal force.

Claim Rejections - 35 USC § 112

7. **Claims 6-9** are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, the phrase "to be able to" is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

In claim 6, the recitation "a cylindrical wall having an annular space inside there" is indefinite, because the claim language is read as if the cylindrical wall having an annular space inside the wall. It is unclear how a cylindrical wall having an annular space inside the wall. Should it be a cylindrical wall integral with one of said rotor casing and said turn table, where in said wall and one of said rotor casing and said turn table forming an annular space therebetween.

Art Unit: 2834

In claim 7, the recitation "said ball revolves, when said disk is turned, around said shaft while being maintained held at a position" is indefinite because it is unclear how the ball revolves (this is understood as the ball is rotatable or movable), while the ball being maintained held at a position (this is understood as the ball being held (fixed) in one position, not movable).

In claim 8, recitation "wherein a plurality of balls are placed in said space" is indefinite because as recited by claim 1, there is a (single) ball arranged in the space. However, claim 8 recites a plurality of balls. Should it be the spindle motor further includes a plurality of balls being placed in said space?

Appropriate corrections are required.

Claim 9 is included in the rejection because of its dependency.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Morimoto et al, USP 5748406, in view of Kamoshita et al, USP 4730299.

Morimoto et al disclose a spindle motor (figs. 1-8) comprising a (3) rotatably supported; a rotor casing (2) turn together with the shaft; a turn table (4) fixedly mounted on one end portion of the shaft; a movable balance member (6) being located between the rotor casing and the turn

Art Unit: 2834

table to maintain the rotational balance of the motor. Morimoto et al substantially disclose the claimed invention, except for the limitation of a disk rotatably mounted on the turn table.

Kamoshita et al, however, disclose a spindle motor, particularly a disk type motor, having a disk (21) being rotatably mounted on the turn table (30) (fig. 1). Those skilled in the art would understand that a disk, such as laser disk or compact disk, being rotatably mounted on a turn table for rotating with the turn table is well know in the disk drive motor.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a disk being rotatably mounted on the turn table, as taught by Kamoshita et al, because a disk, such as laser disk or compact disk, being rotatably mounted on a turn table for rotating with the turn table is well known in the disk drive motor.

Allowable Subject Matter

10. **Claim 6** would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

11. **Claims 7-9** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

12. The following is an Examiner's Statement of Reasons for Allowance: the subject matter as claimed in claim 1 of the instant application is different from the prior art of the record. The spindle motor of the present invention comprises a shaft rotatably supported; a rotor casing

Art Unit: 2834

turned together with the shaft; a turn table fixedly mounted on one end portion of the shaft and rotated with a disk mounted there on; a cylindrical wall integral with one of the rotor casing and the turn table. The wall and one of the rotor casing and the turn table form an annular space therebetween; a ball arranged so as to freely roll in the annular space for canceling the unbalance centrifugal force which attributes to the eccentric gravity center.

Thus, none of the prior-art of the record discloses a spindle motor having a movable balancing member being arranged between the motor casing and the turn table to maintain the rotational balance of the disk in the disk drive motor of the present invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran Nguyen whose telephone number is (703) 308-1639.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-1782. The fax phone number for this Group is (703) 305-3431 (32).



Nguyen, Tran
March 26, 1999